

**§ 75.72 Determination of NO<sub>x</sub> mass emissions for common stack and multiple stack configurations.**

The owner or operator of an affected unit shall either: calculate hourly NO<sub>x</sub> mass emissions (in lbs) by multiplying the hourly NO<sub>x</sub> emission rate (in lbs/mmBtu) by the hourly heat input rate (in mmBtu/hr) and the unit or stack operating time (as defined in § 72.2), or, as provided in paragraph (e) of this section, calculate hourly NO<sub>x</sub> mass emissions from the hourly NO<sub>x</sub> concentration (in ppm) and the hourly stack flow rate (in scfh). Only one methodology for determining NO<sub>x</sub> mass emissions shall be identified in the monitoring plan for each monitoring location at any given time. The owner or operator shall also calculate quarterly and cumulative year-to-date NO<sub>x</sub> mass emissions and cumulative NO<sub>x</sub> mass emissions for the ozone season (in tons) by summing the hourly NO<sub>x</sub> mass emissions according to the procedures in section 8 of appendix F to this part.

(a) *Unit utilizing common stack with other affected unit(s).* When an affected unit utilizes a common stack with one or more affected units, but no non-affected units, the owner or operator shall either:

(1) Install, certify, operate, and maintain a NO<sub>x</sub>-diluent continuous emissions monitoring system and a flow monitoring system in the common stack, record the combined NO<sub>x</sub> mass emissions for the units exhausting to the common stack, and, for purposes of determining the hourly unit heat input rates, either:

(i) Apportion the common stack heat input rate to the individual units according to the procedures in § 75.16(e)(3); or

(ii) Install, certify, operate, and maintain a flow monitoring system and diluent monitor in the duct to the common stack from each unit; or

(iii) If any of the units using the common stack are eligible to use the procedures in appendix D to this part,

(A) Use the procedures in appendix D to this part to determine heat input rate for that unit; and

(B) Install, certify, operate, and maintain a flow monitoring system and a diluent monitor in the duct to the

common stack for each remaining unit; or

(2) Install, certify, operate, and maintain a NO<sub>x</sub>-diluent continuous emissions monitoring system in the duct to the common stack from each unit and, for purposes of heat input determination, either:

(i) Install, certify, operate, and maintain a flow monitoring system in the duct to the common stack from each unit; or

(ii) For any unit using the common stack and eligible to use the procedures in appendix D to this part,

(A) Use the procedures in appendix D to determine heat input rate for that unit; and

(B) Install, certify, operate, and maintain a flow monitoring system in the duct to the common stack for each remaining unit.

(b) *Unit utilizing common stack with nonaffected unit(s).* When one or more affected units utilizes a common stack with one or more nonaffected units, the owner or operator shall either:

(1) Install, certify, operate, and maintain a NO<sub>x</sub>-diluent continuous emission monitoring system in the duct to the common stack from each affected unit and, for purposes of heat input determination,

(i) Install, certify, operate, and maintain a flow monitoring system in the duct to the common stack from each affected unit; or

(ii) For any affected unit using the common stack and eligible to use the procedures in appendix D to this part,

(A) Use the procedures in appendix D to determine heat input for that unit; however, for a common pipe configuration, the heat input apportionment provisions in section 2.1.2 of appendix D to this part shall not be used to meet the NO<sub>x</sub> mass reporting provisions of this subpart unless all of the units served by the common pipe are affected units and have similar efficiencies; and

(B) Install, certify, operate, and maintain a flow monitoring system in the duct to the common stack for each remaining affected unit that exhausts to the common stack; or

(2) Install, certify, operate, and maintain a NO<sub>x</sub>-diluent continuous emission monitoring system in the common stack; and

(i) Designate the nonaffected units as affected units in accordance with the applicable State or federal NO<sub>x</sub> mass emissions reduction program and meet the requirements of paragraph (a)(1) of this section; or

(ii) Install, certify, operate, and maintain a flow monitoring system in the common stack and a NO<sub>x</sub>-diluent continuous emission monitoring system in the duct to the common stack from each nonaffected unit. The designated representative shall submit a petition to the permitting authority and the Administrator to allow a method of calculating and reporting the NO<sub>x</sub> mass emissions from the affected units as the difference between NO<sub>x</sub> mass emissions measured in the common stack and NO<sub>x</sub> mass emissions measured in the ducts of the nonaffected units, not to be reported as an hourly value less than zero. The permitting authority and the Administrator may approve such a method whenever the designated representative demonstrates, to the satisfaction of the permitting authority and the Administrator, that the method ensures that the NO<sub>x</sub> mass emissions from the affected units are not underestimated. In addition, the owner or operator shall also either:

(A) Install, certify, operate, and maintain a flow monitoring system in the duct from each nonaffected unit or,

(B) For any nonaffected unit exhausting to the common stack and otherwise eligible to use the procedures in appendix D to this part, determine heat input rate using the procedures in appendix D for that unit. However, for a common pipe serving both affected and non-affected units, the heat input rate apportionment provisions in section 2.1.2 of appendix D to this part shall not be used to meet the NO<sub>x</sub> mass reporting provisions of this subpart. For any remaining nonaffected unit that exhausts to the common stack, install, certify, operate, and maintain a flow monitoring system in the duct to the common stack; or

(iii) Install a flow monitoring system in the common stack and record the combined emissions from all units as the combined NO<sub>x</sub> mass emissions for the affected units for recordkeeping and compliance purposes, in accordance

with paragraph (a) of this section; or

(iv) Submit a petition to the permitting authority and the Administrator to allow use of a method for apportioning NO<sub>x</sub> mass emissions measured in the common stack to each of the units using the common stack and for reporting the NO<sub>x</sub> mass emissions. The permitting authority and the Administrator may approve such a method whenever the designated representative demonstrates, to the satisfaction of the permitting authority and the Administrator, that the method ensures that the NO<sub>x</sub> mass emissions from the affected units are not underestimated.

(c) *Unit with a main stack and a bypass stack.* Whenever any portion of the flue gases from an affected unit can be routed through a bypass stack to avoid the installed NO<sub>x</sub>-diluent continuous emissions monitoring system or NO<sub>x</sub> concentration monitoring system, the owner and operator shall either:

(1) Install, certify, operate, and maintain separate NO<sub>x</sub>-diluent continuous emissions monitoring systems and flow monitoring systems on the main stack and the bypass stack and calculate NO<sub>x</sub> mass emissions for the unit as the sum of the NO<sub>x</sub> mass emissions measured at the two stacks;

(2) Monitor NO<sub>x</sub> mass emissions at the main stack using a NO<sub>x</sub>-diluent CEMS and a flow monitoring system and measure NO<sub>x</sub> mass emissions at the bypass stack using the reference methods in § 75.22(b) for NO<sub>x</sub> concentration, flow rate, and diluent gas concentration, or NO<sub>x</sub> concentration and flow rate, and calculate NO<sub>x</sub> mass emissions for the unit as the sum of the emissions recorded by the installed monitoring systems on the main stack and the emissions measured by the reference method monitoring systems; or

(3) Install, certify, operate, and maintain a NO<sub>x</sub>-diluent CEMS and a flow monitoring system only on the main stack. If this option is chosen, it is not necessary to designate the exhaust configuration as a multiple stack configuration in the monitoring plan required under § 75.53, since only the main stack is monitored. For each unit operating hour in which the bypass

stack is used and the emissions are either uncontrolled (or the add-on controls are not documented to be operating properly), report NO<sub>x</sub> mass emissions as follows. If the unit heat input is determined using a flow monitor and a diluent monitor, report NO<sub>x</sub> mass emissions using the maximum potential NO<sub>x</sub> emission rate, the maximum potential flow rate, and either the maximum potential CO<sub>2</sub> concentration or the minimum potential O<sub>2</sub> concentration (as applicable). The maximum potential NO<sub>x</sub> emission rate may be specific to the type of fuel combusted in the unit during the bypass (see § 75.33(c)(8)). If the unit heat input is determined using a fuel flowmeter, in accordance with appendix D to this part, report NO<sub>x</sub> mass emissions as the product of the maximum potential NO<sub>x</sub> emission rate and the actual measured hourly heat input rate. Alternatively, for a unit with NO<sub>x</sub> add-on emission controls, for each unit operating hour in which the bypass stack is used but the add-on NO<sub>x</sub> emission controls are not bypassed, the owner or operator may report the maximum controlled NO<sub>x</sub> emission rate (MCR) instead of the maximum potential NO<sub>x</sub> emission rate provided that the add-on controls are documented to be operating properly, as described in the quality assurance/quality control program for the unit, required by section 1 in appendix B of this part. To provide the necessary documentation, the owner or operator shall record parametric data to verify the proper operation of the NO<sub>x</sub> add-on emission controls as described in § 75.34(d). Furthermore, the owner or operator shall calculate the MCR using the procedure described in section 2.1.2.1(b) of appendix A to this part by replacing the words “maximum potential NO<sub>x</sub> emission rate (MER)” with the words “maximum controlled NO<sub>x</sub> emission rate (MCR)” and by using the NO<sub>x</sub> MEC in the calculations instead of the NO<sub>x</sub> MPC.

(d) *Unit with multiple stack or duct configuration.* When the flue gases from an affected unit discharge to the atmosphere through more than one stack, or when the flue gases from an affected unit utilize two or more ducts feeding into a single stack and the owner or operator chooses to monitor

in the ducts rather than in the stack, the owner or operator shall either:

(1) Install, certify, operate, and maintain a NO<sub>x</sub>-diluent continuous emission monitoring system and a flow monitoring system in each of the multiple stacks and determine NO<sub>x</sub> mass emissions from the affected unit as the sum of the NO<sub>x</sub> mass emissions recorded for each stack. If another unit also exhausts flue gases into one of the monitored stacks, the owner or operator shall comply with the applicable requirements of paragraphs (a) and (b) of this section, in order to properly determine the NO<sub>x</sub> mass emissions from the units using that stack;

(2) Install, certify, operate, and maintain a NO<sub>x</sub>-diluent continuous emissions monitoring system and a flow monitoring system in each of the ducts that feed into the stack, and determine NO<sub>x</sub> mass emissions from the affected unit using the sum of the NO<sub>x</sub> mass emissions measured at each duct; or

(3) If the unit is eligible to use the procedures in appendix D to this part and if the conditions and restrictions of § 75.17(c)(2) are fully met, install, certify, operate, and maintain a NO<sub>x</sub>-diluent continuous emissions monitoring system in one of the ducts feeding into the stack or in one of the multiple stacks, (as applicable) in accordance with § 75.17(c)(2), and use the procedures in appendix D to this part to determine heat input rate for the unit.

(e) *Units using a NO<sub>x</sub> concentration monitoring system and a flow monitoring system to determine NO<sub>x</sub> mass.* The owner or operator may use a NO<sub>x</sub> concentration monitoring system and a flow monitoring system to determine NO<sub>x</sub> mass emissions for the cases described in paragraphs (a) through (c) of this section and in paragraph (d)(1) or paragraph (d)(2) of this section (in place of a NO<sub>x</sub>-diluent continuous emissions monitoring system and a flow monitoring system). However, this option may not be used for the case described in paragraph (d)(3) of this section. When using this approach, calculate NO<sub>x</sub> mass according to sections 8.2 and 8.3 in appendix F to this part. In addition, if an applicable State or federal NO<sub>x</sub> mass reduction program requires determination of a unit's heat

input, the owner or operator must either:

(1) Install, certify, operate, and maintain a CO<sub>2</sub> or O<sub>2</sub> diluent monitor in the same location as each flow monitoring system. In addition, the owner or operator must provide heat input rate values for each unit utilizing a common stack. The owner or operator may either:

(i) Apportion heat input rate from the common stack to each unit according to § 75.16(e)(3), where all units utilizing the common stack are affected units, or

(ii) Measure heat input from each affected unit, using a flow monitor and a CO<sub>2</sub> or O<sub>2</sub> diluent monitor in the duct from each affected unit; or

(2) For units that are eligible to use appendix D to this part, use the procedures in appendix D to this part to determine heat input rate for the unit. However, the use of a fuel flowmeter in a common pipe header and the provisions of sections 2.1.2.1 and 2.1.2.2 of appendix D of this part are not applicable to any unit that is using the provisions of this subpart to monitor, record, and report NO<sub>x</sub> mass emissions under a State or federal NO<sub>x</sub> mass emission reduction program and that shares a common pipe with a nonaffected unit.

(f) [Reserved]

(g) *Procedures for apportioning heat input to the unit level.* If the owner or operator of a unit using the common stack monitoring provisions in paragraphs (a) or (b) of this section does not monitor and record heat input at the unit level and the owner or operator is required to do so under an applicable State or federal NO<sub>x</sub> mass emission reduction program, apportion heat input from the common stack to each unit according to § 75.16(e)(3).

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#### § 75.73 Recordkeeping and reporting.

(a) *General recordkeeping provisions.* The owner or operator of any affected unit shall maintain for each affected unit and each non-affected unit under § 75.72(b)(2)(ii) a file of all measurements, data, reports, and other information required by this part at the source in a form suitable for inspection

for at least three (3) years from the date of each record. Except for the certification data required in § 75.57(a)(4) and the initial submission of the monitoring plan required in § 75.57(a)(5), the data shall be collected beginning with the earlier of the date of provisional certification or the compliance deadline in § 75.70(b). The certification data required in § 75.57(a)(4) shall be collected beginning with the date of the first certification test performed. The file shall contain the following information:

(1) The information required in §§ 75.57(a)(2), (a)(4), (a)(5), (a)(6), (b), (c)(2), (d), (g), and (h).

(2) The information required in §§ 75.58(b)(2) or (b)(3) (for units with add-on NO<sub>x</sub> emission controls), as applicable, (d) (as applicable for units using Appendix E to this part), and (f) (as applicable for units using the low mass emissions unit provisions of § 75.19).

(3) For each hour when the unit is operating, NO<sub>x</sub> mass emissions, calculated in accordance with section 8.1 of appendix F to this part.

(4) During the second and third calendar quarters, cumulative ozone season heat input and cumulative ozone season operating hours.

(5) Heat input and NO<sub>x</sub> methodologies for the hour.

(6) *Specific heat input record provisions for gas-fired or oil-fired units using the procedures in appendix D to this part.* In lieu of the information required in § 75.57(c)(2), the owner or operator shall record the information in § 75.58(c) for each affected gas-fired or oil-fired unit and each non-affected gas- or oil-fired unit under § 75.72(b)(2)(ii) for which the owner or operator is using the procedures in appendix D to this part for estimating heat input.

(7) *Specific NO<sub>x</sub> record provisions for gas-fired or oil-fired units using the optional low mass emissions excepted methodology in § 75.19.* In lieu of recording the information in §§ 75.57(b), (c)(2), (d), and (g), the owner or operator shall record, for each hour when the unit is operating for any portion of the hour, the following information for each affected low mass emissions unit for which the owner or operator is using